CRES ECE MINDS

Department of Electronics and Communication Engineering

Cres ECE Minds

SCIENCE + TECHNOLOGY + DESIGN

CONTENTS

MOVIE TECHNOLOGY BREAKDOWN

Movie making is telling a story with the best technology at your disposal.
-Tom Hanks

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ALUMNI CONNECT

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FROM THE
VICE-CHANCELLOR'S DESK

Mahatma Gandhi once said,
"Adaptability is not imitation. It means power of resistance and assimilation."
As many great leaders believe- adaptability and innovation done in the right mixture is the way of our future. In this digital world, technology has equipped us to face the pandemic in an efficient way.
The Department of Electronics and Communication Engineering has brought forth this magazine,
"Cres ECE Minds", which showcases the artistry and inventiveness of the department.
This magazine showcases that even at our lowest point, we are open to the greatest of changes. Sometimes, a ray of hope is all the sunshine we need.

Dr. A. Peer Mohamed
Vice-Chancellor
B.S. Abdur Rahman Crescent Institute of Science & Technology Chennai – 600048

FROM REGISTRAR'S DESK

I am happy to endorse the department's e-magazine,
"Cres ECE minds", brought out by the students of ECE. The e-magazine contains a variety of interesting topics like cryptocurrency and Blockchain. My good wishes to the students and faculty members who put their sincere efforts to bring out this magazine.

Dr. A. Azad
Registrar
B.S. Abdur Rahman Crescent Institute of Science & Technology Chennai – 600048

FROM DEAN'S DESK

The above quote suits the Electronics and Communication Engineering department as it best describes our aim in taking the department forward. ECE department, over the years, perfected the ability to aim high and embrace excellence by means of the Head of the department and the team of faculty members and students. Regularly the department builds intellectual prosperity to influence success in academics, quality placements, research, and development. It is worth mentioning that the department has well-established bonds with industries and developed affiliates. They strive to train and equip their students to get placed in top multinational corporations by polishing the talent hidden in them. I believe strongly that the challenges can be confronted and resolved by presenting their achievements and skills through this magazine. The onward march in the field of technical education and research continues every day, pushing us forward to reach greater heights. Tomorrow is too late, yesterday is over, and now is the perfect moment to start! I extend my warmest wishes to both the students and faculty members of the Electronics and Communication Engineering department and wish them success on their initiative.

Dr. D. Najumnissa Jamal Dean/SECS
B.S. Abdur Rahman Crescent
Institute of Science & Technology
Chennai – 600048

FROM HOD'S DESK

It is with great pleasure and pride that I peruse the pages of the ECE department magazine, in the illustrious annals of this department. I laud the Editorial board for bringing out the magazine on schedule, which is no small achievement in itself considering the time and efforts that have gone into it. The field of Electronics and Communication is at the forefront of innovation today, charting new territories. Engineering education also has kept pace with the advancements. This magazine succinctly captures the essence of the technological advances and innovation happening in this area. It highlights the achievements of the students and faculty and poses interesting research questions for future generations of students.

The creativity, innovation, and tireless pursuit of the students and faculty are showcased beautifully for the benefit of students and the general public alike.
I applaud the editorial team for the hard work and dedication they have invested in realizing this goal and wish my dear students success in all future endeavors. I also encourage the forthcoming batches of students to continue the great work that has been started today and to emulate the achievements of their seniors.

Dr. C. Tharini
Professor and Head ECE Department
B.S. Abdur Rahman Crescent Institute of Science & Technology
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"WE ARE CHANGING THE WORLD WITH TECHNOLOGY"
-BILL GATES

TECHNOLOGY UPDATE

EDGE COMPUTING

By Mohammed Furkhan
I Year
ECE-A

Edge computing is a distributed computing paradigm that brings computation and data storage closer to the sources of data. It creates new and improved ways for industrial-level businesses to maximize operational efficiency, improve performance and safety and so on. Edge computing has a two-way computing stream; one is from devices to the cloud and the other is from the cloud to devices. In the edge computing paradigm, end devices also serve as data producers. At the edge, things can not only request service and content from the cloud but can also perform computing tasks from the cloud. Edge can perform computing offloading, data storage, caching, and processing, also distribute requests and deliver services from the cloud to the user. The edge needs to be designed to meet the requirements, like reliability, security, and privacy protection.

There are three types of edge computing:
Cloud: It refers mainly to large data centres run by cloud companies such as AWS, Azure, and GCP.
Device Edge: This consists of one or more tiny servers. It would consist only of one or a few customizations and would have limited processing power.
Compute Edge: It's also a micro-DC. It's a small data centre consisting of everything from a few up to many server racks. Commonly located next to IoT devices. The hope is that potential systems will spread through these different layers of computing, communicating with devices at the bottom. Some parts of the application would require direct exposure to edge sensors whereas, other parts would need exposure to more complicated resources- more processing power in either Network Edge or the Cloud. Components at different locations will work together to shape an application .

CRYPTOCURRENCY AND BLOCKCHAIN

By-Mohamed Farhan
I Year
ECE-A

"Paper money is going away" - Elon Musk

CRYPTOCURRENCY:

Cryptocurrency is a digital currency that can used to purchase goods and services, by employing an online ledger with powerful cryptography to safeguard online transactions. The purpose of using these unregulated currencies is to make money. Some cryptocurrencies, such as Bitcoin, Ethereum, and Litecoin, are at the forefront of Blockchain's technological rise. It can be purchased with one of several digital wallets or trading platforms, then digitally transferred when an item is purchased, with the blockchain recording the transaction and the new owner. Users can avoid the hefty fees levied by banks by completing fund transfers with minimal processing fees.

BLOCKCHAIN:

Blockchain is a method of storing information in such a way that it is difficult or impossible to edit, hack, or trick the system. It is simply a digital log of transactions that is duplicated and spread across the blockchain's complete network of computer systems.

Each block on the chain contains a number of transactions, and whenever a new transaction occurs on the blockchain, a record of that transaction is added to the ledger of every participant. Distributed Ledger Technology refers to a decentralised database administered by several individuals (DLT).

These are accompanied with an unchangeable cryptographic signature known as a HASH. This means that if one block in a chain was modified, it would be obvious that it had been tampered with. To disrupt a blockchain system, hackers would have to modify every block in the chain, across all distributed versions of the chain.

TELEHEALTH TECHNOLOGIES
THE NEW WAY OF MAKING HEALTHY AND HAPPY LIVING

**By Asmaa Areef
I Year
ECE-A**

According to WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Telehealth refers to the combination of Health and Communication Technology. It is also called e-health or m-health (mobile health) or telemedicine. These technologies include those we use from home or that our doctors use to improve or support health care services. Due to the Covid-19 situation, the necessity for such technologies have increased drastically as we were confined to our homes. Our physical, mental and social well-being has changed due to the dire situation brought by the pandemic. Easy access to healthcare can be brought about through telehealth technology.

How can telehealth technologies improve our medical care?

1.Teleconsultations - Allows a physician in a remote place to receive advice from an expert in another location about unusual or complex patient conditions
2.Remote patient monitoring (RPM) - Enables patient monitoring outside of clinical settings, eg homes.
3.Telehomecare - Provides the remote care that is needed to allow people with chronic conditions, dementia, or those at high risk to remain living in their own homes.
4.Point-of-care (POC) - POC devices can detect micronutrient deficiencies, infectious agents, anemia and even cancers too.
5. Personal health apps - Many Health Apps are developed to assist individuals in improving their health and organising their medical information in one secure location.

As we know- health is wealth, we need to think of our health and always monitor ourselves for being fit. Technology has grown in wider range and that can transform our lives.

QUANTUM COMPUTING AND VACCINE SYNTHESIS

## By Keerthana.S
I Year
ECE-A

The concept of quantum computing is one that uses many elements from theoretical physics to increase its magnitude performance. And it has the potential to prevent the next pandemic and the massive loss of human lives. I am a strong believer in the theory of quantum computing; it can play an instrumental role in vaccine development by solving complex problems. The use of new technologies has shaved off several years in comparison with traditional vaccine development timelines. The vaccine development process requires an understanding of the protein structure of the virus and its binding behaviour on the host' cell.

A typical vaccine development takes approximately 12 to 18 months, which involves several stages of trials. During phase 1, molecular simulations often have to be performed to understand the protein structure of the virus or how it inserts itself into the cells. However, moving forward to phase 2 of the testing, it tests whether the vaccine works consistently, and phase 3 tests its efficiency. It determines the ability to run more complex simulations. Being more meticulous can reduce the chance of vaccines being ruled out in the second or third testing phase. Looking at the impact that Covid-19 has on society, economy and healthcare, we are able to realize the important role of quantum computing on vaccine synthesis which greatly increases the speed of production.

CROSS WORD
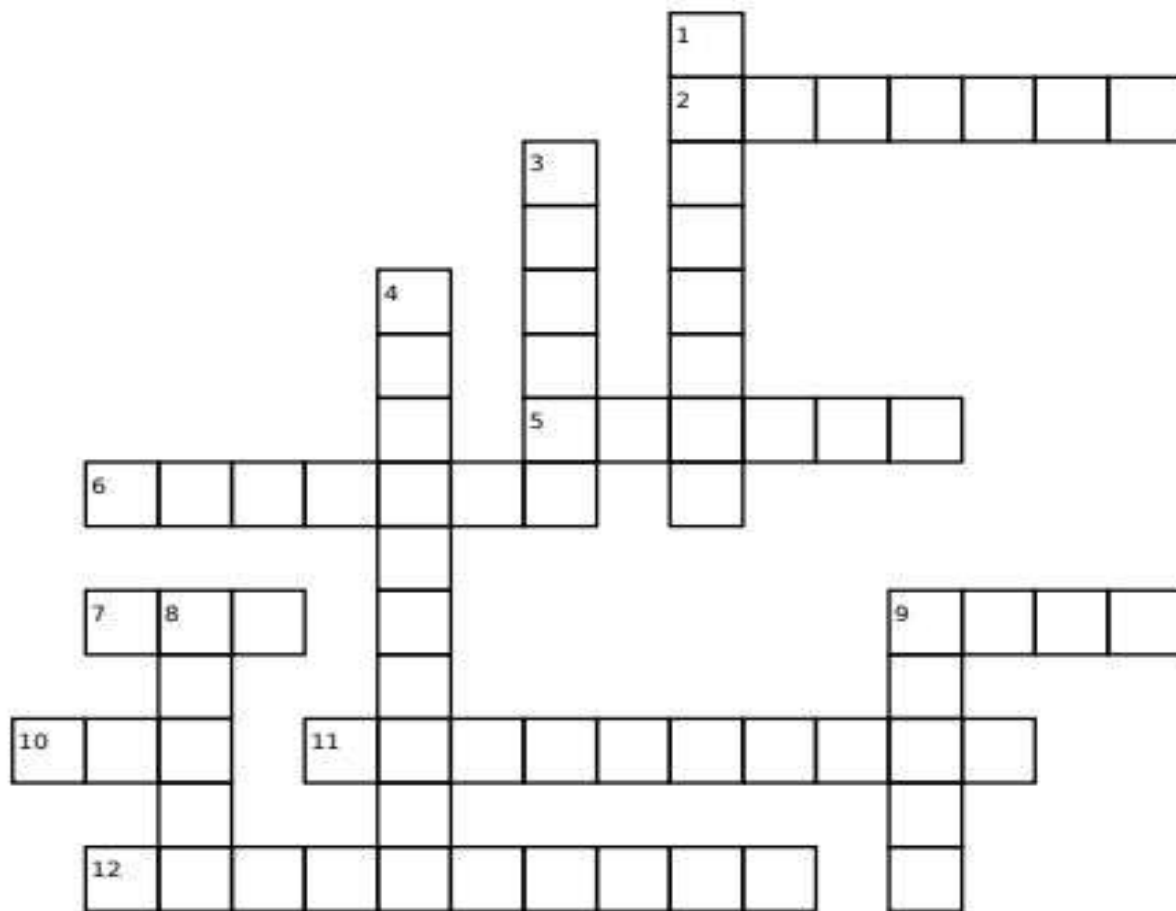
Across:
2. Heavily doped terminal in transistor
5. A book stored in digital format
6. A device connected to a computer that is used to access wireless broadband.
7. CPU based on RISC architecture that is used in consumer electronic devices such as wearables
9. A semiconductor wafer consisting of processing and memory units
10. PN junction diode that emits light when activated
11. Special type of diode designed to reliably
allow current to flow "backwards" when a certain set reverse voltage
12. A semiconductor device with three
connections, capable of amplification in addition to rectification.

Down:
1. A device that limits the flow of electric current.
3. A device that allows flow of current in one direction.
4.Electronic devices that could make armies flip (10)
8. Used in radio waves detection
9. A person who writes programs

MOVIE TECH
BREAKDOWN

MINORITY REPORT
N.Sudhersan- ECE-B/ IV Year

Minority Report is a 2002 American science fiction action film directed by Steven Spielberg, based on Philip K. Dick's 1956 short story, "The Minority Report." The film incorporates aspects of the genres of tech-noir, whodunit, thriller, and science fiction. Minority Report received positive reviews. The film was nominated for several awards, including Academy Award for Best Sound Editing and Saturn Awards (including Best Actor, Best Supporting Actor, and Saturn Award for Best Music). It won Best Science Fiction Film, Best Direction, Best Writing, and Best Supporting Actress. The picture grossed over $358 million worldwide on a $142 million budget and sold over four million DVDs in its first few months of home release. Minority Report was the first film to have an entirely digital production design known as "previz"(an abbreviation for previsualization). Production designer Alex McDowell stated that the system allowed them to use Photoshop instead of painters and employ 3D animation programmes (Maya and XSI) to create a simulated set, which later was filled by digital actors and used to block out shots in advance. The technology also enabled the tie-in video game and special effects businesses to extract data from the prior system before the film was completed, which they used to assign settings for their aesthetics. The Ronald Reagan Building (as Pre Crime headquarters) and Georgetown were filming locations.

Despite being set in a hypothetical future world of advanced technology, the movie seeks to portray a more "realistic" depiction of the future.
Spielberg created a setting to retain characteristics of the present to be more realistic. In the film, Washington, D.C. has well-known buildings like the Capitol and the Washington Monument. The stunt team was in charge of the complicated action scenes. The auto plant chase sequence, shot in a facility utilising props such as a welding robot to add genuineness and the fight between Anderton and the jetpack-clad officers, shot in an alley set erected on the Warner Bros. studio lot, were among them. Industrial Light & Magic created the majority of special effects, while PDI/DreamWorks created Spyder robots. Several roaming cameras surrounded the performers while they filmed the holographic projections and the prison complex. The picture employed autonomous automobiles, insect robots, targeted advertising, crime prediction software, jet packs, and gesture recognition, making it worth viewing.

ALITA : BATTLE ANGEL

Shafeeq Ahamed-ECE-B / III year

""Alita: Battle Angel" is a 2019 American cyberpunk action film based on Yukito Kishiro's 1990s manga series "Battle Angel Alita" and its 1993 original video animation adaption, "Battle Angel". Directed by Robert Rodriguez and produced by James Cameron, the film grossed over $405 million worldwide, becoming Robert Rodriguez's highest-grossing picture. The writers were Cameron and Laeta Kalogridis.

Set several decades in the future, Ido, a sympathetic cyber-doctor, discovers the abandoned Alita in the scrapyard of Iron City and transports the unconscious cyborg to his clinic. When Alita awakens, she has no recollection of who she is or of the environment surrounding her. Ido tries to shelter Alita from her enigmatic history as she learns to navigate her new life and the treacherous streets of the Iron City.

The film combined live-action and computer-generated graphics, similar to Avatar. Although a human actress (Rosa Salazar) played the role of Alita, a concoction of performance capture and CGI created a hyper-real performance that merged with the fantasy world. Performance capture is a technology that captures both the body and the facial performance at the same time.

To accomplish this, Salazar used a motion capture suit, which is essentially a black spandex outfit with tiny little white spots all over it. The filmmakers then placed cameras all over the set to capture Salazar's moves from every angle. The dots on the suit serve as a reference point for animating the character. Salazar wore a bodysuit and two high-definition cameras in a headset pointing at her face, which photographed her face to capture movements.

The rationale for doing the extra labour rather than merely using CGI gave the character a human foundation. Weta Digital, DNEG, and Framestore contributed the visual effects. Joe Letteri, Eric Saindon, Nick Epstein, Raymond Chen, and Nigel Denton-Howes, monitored the intricacy of visual effects. Weta Digital was the major contributor for the Alita digital puppet, which forced the studio to develop its motion capture technologies to capture all of Salazar's subtleties and intricacies. The film boasts outstanding world-building, vividly displaying its dystopian setting filled with rusted infrastructure in the iron metropolis.

It also debunks the myth that "Anime/Manga Live-Action Adaptations are Bad!". The manga community adores the adaption. It also includes some of the best action moments in film history, making it a must-watch.

SNOWPIERCER

N.Sudhersan-
ECE-B/IV year

Snowpiercer is a 2013 South Korean-American science fiction action film based on Jacques Lob's, Benjamin Legrand's, and Jean-Marc Rochette's graphic climate fiction novel "Le Transperceneige". Bong Joon-ho directed the picture, which he co-wrote with Kelly Masterson.

In the movie, the planet has become icy. A bungled attempt to combat global warming has resulted in a new ice age and the extinction of life on Earth. All that is left is a solitary train known as the Snowpiercer.

With nearly 9.3 million admissions, Snowpiercer is one of the year's highest-grossing films. It is the most expensive Korean film to be released to date. The film, shot on a 35 mm film with a 1.85:1 aspect ratio, was a record-breaking blockbuster, sold in 167 nations.

Inside the train, most scenes were shot with the tail sections and engine, to the left and right side of the character, respectively. It gave the audience a sense that the shot is moving in the same direction as the characters are moving. Scanline VFX created visual effects. The most difficult effects created for the train involved the length of the train and the number of cars. Mielke devised and built a sophisticated rig that enabled the animators involved in the creation process as much capability as feasible.

Based on their work on environment and animation, they chose Method Studios(Vancouver and London branches). UPP in Prague did a variety of work ranging from CG characters to train interiors. The 4th Creative Party from Seoul also accomplished outstanding work, with a plethora of VFX shots and the design of the monitor displays.

Another memorable scene is the gunfight between train cars covered in layers upon layers of ice and snow. As the train moves along a wide curve, our hero Curtis (Chris Evans) and Franco the Elder (Vlad Ivanov) duke it out. Despite being separated by 20 automobiles, the bend allows Curtis and Franco to see each other. There were approximately 850 shots in the show. Due to this, humongous visual and organizational information had to be processed. The film's slow-motion obsession, blending outfits, and striking weaponry that shields the repetitiveness, makes it more engaging.

THE MANDALORIAN

Shafeeq Ahamed ECE-B, III/year
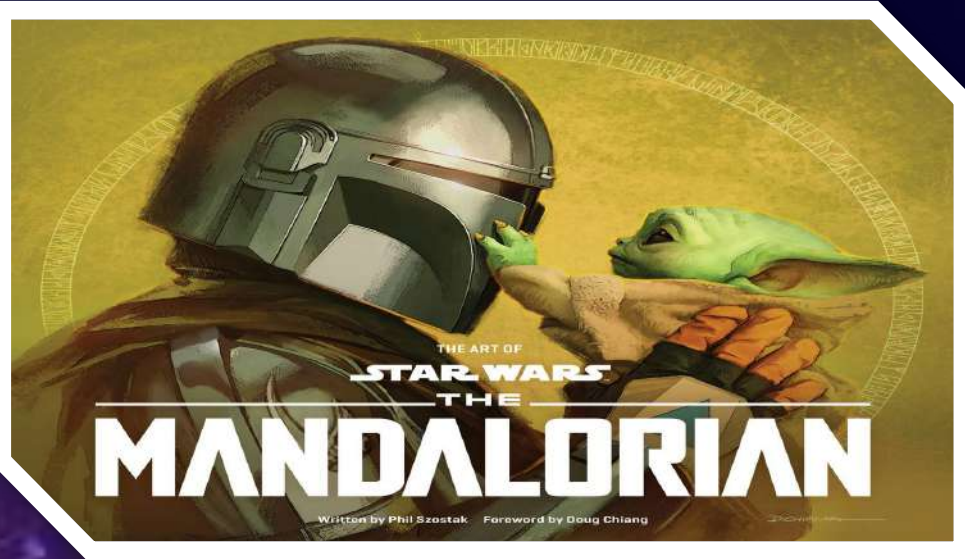
The Mandalorian is an American space Western television series produced by Jon Favreau for the Disney+Hotstar streaming service. It stars Pedro Pascal as the main character, a lone bounty hunter who flees after being recruited to find "Child." It takes place after the fall of the Empire but before the rise of the First Order. We follow the exploits of a lone gunfighter in the galaxy's outskirts, far from the authority of the New Republic. You might have assumed that all of those extra-terrestrial worlds, spacecraft cockpits, and others were either green-screened or location shoot-outs. You'll be surprised to know that a groundbreaking technique employed for shooting over half of The Mandalorian Season one eliminated the need for location shoots. Getting into character when surrounded by green walls, foam blocks indicating obstacles, and people with mocap dots on their faces and suits with Ping-Pong balls attached, is one of the most challenging things for an actor in modern filmmaking. Furthermore, due to the restrictions in rendering CG content, camera movements are frequently limited or a few pre-selected shots for which the content and lighting were tailormade.

The new virtual production approach enabled filmmakers to take a large number of shots having complex visual effects, using real-time game engine technology and LED panels to represent dynamic "photo-real digital" landscapes and sets with creative flexibility, which was previously not possible.

The Mandalorian actors performed on a gigantic 20-foot-high, 270-degree semi-circular LED video wall and ceiling with a 75-foot-diameter performance space. Here, practical set pieces blended with digital extensions on the screens. ILM's Digital 3D environments were played interactively on the LED walls and altered in real-time during the shot, allowing pixel-accurate tracking and perspective-correct 3D imagery (rendered at high resolution using systems powered by NVIDIA GPUs). Illumination and generation of settings from the camera's perspective to offer real-time parallax allowed the camera to truly capture the physical scene with accurate interactive light on the actors and practical sets. This type of technology is game-changing. It's still pricey, hence not affordable for everyone. However, it is more efficient. With time, technology gets more easily replicated, it creates the possibility for achieving higher production quality without breaking the wallets of independent productions. The Mandalorian is a fantastic television series, expertly made by storytellers at the pinnacle of their creative venture. It is tough to resist jumping on board now that it appears to be getting into the groove.

INTRESTING FACTS

- Chewing "chewing gums" while peeling onions will keep you from crying.
- Your tongue is germ-free only when it's pink. If it's white, it means a thin film of bacteria is trapped between the papillae on the surface of the tongue.
- Titanic was the first ship to use the SOS signal.
- Honey is so easy to digest because bees add enzymes to it, partially breaking down the sugar.
- "Rhythm" is the longest English word without a vowel.
- Sloths take two weeks to digest their food.
- On an average, twelve newborns are given to the wrong parents daily.
- Currency notes do not make use of paper, it makes use of cotton.
- A man named Charles Osborne hiccuped for 69 years continuously.
- On an average, Americans eat 18 acres of pizza.

AMAZING WORDS

Upon rearranging letters in these words in a particular way, it gives meaningful words.

- Astronomer : moon starer
- Dormitory : dirty room
- The eyes : they see
- Eleven plus two : twelve plus one
- Election results : lies lets recount

WEEKLY HOLIDAYS AROUND THE WORLD

- **INDIA- Sunday**
- GREECE- Monday
- UNITED ARAB EMIRATES – Friday
- PARIS – Tuesday
- EGYPT – Wednesday
- ISRAEL – Saturday

-S. SHIRIN RAFIA

FINAL YEAR ECE

ALUMNI INTERVIEW

BY
ANKEETA BEHERA AND
JANANI .M

MR.MOHAMMED SAFIYUR RAHMAN (2005-2009)

Current role in his company -

Mr. Mohamed Safiyur is currently working as a project manager in Robert Bosh engineering solutions.

Early life at crescent-

Safiyur enrolled himself in B.E. ECE at Crescent in 2005. He was able to get a scholarship because of his 12th cutoff mark of 199.25. He was particularly interested in pursuing his further studies at Crescent because it was one of the most reputed engineering colleges of Tamil Nadu, under Anna University, that provided education in an Islamic environment. It held 10th position against 290 engineering colleges at that period.

Why ECE?

"The advantage of pursuing ECE is one can work in core as well as in the software companies", he explains. He believed that there would be an ECE industry boom in the next 25-30 years. He strongly feels that he took the right decision by pursuing this course, as this domain has played a crucial role in digitization. In the past ten years, digitization has benefitted all and will continue connecting people. "ECE evergreen course", he adds. This course was a green signal for him.

How did Safiyur ended up in Bosch?

Safiyur was placed in L&T initially in 2009, but then he chose to write the ME entrance exam and then completed his masters in GEC Coimbatore. After completion, he got placed in a medical R&D Company, where he worked for three and half years. After that, he worked in Caterpillar for four years and currently, he is in Bosch as a project engineer.

Best memories at Crescent:

Safiyur was incredibly happy to answer this. "It was in my third year when I was appointed as the placement coordinator of my department", he says. He describes that moment as a turning point in his life. This role helped him gain connections within the campus and with various companies as he used to attend meetings with professionals. It gave him great exposure in his college life. It equipped him with leadership qualities.

How was life before and after crescent?

Mr. Safiyur's life before Crescent was monotonous. After joining Crescent, he was able to think and introspect himself. He gained knowledge continuously and was able to use it at the right time. His life at Crescent proved helpful to him in his engineering course as well in his career too.

Advice for Future Engineers:

"There is plenty to learn outside the curriculum", he says.

He feels having strong basics is just enough to get placed in a company, as the eligibility criteria are set to 60% and not 90% in most companies. He emphasises the importance of being the initiator, working on ourselves for growth, and developing a leadership mindset. He says we should not use others as a shield to stay hidden, instead, we must strike a conversation head-on. He stresses that growth is the result of leveraging opportunities. He feels leadership is the most important quality. He tells, "As a leader, one must ensure that ideas from all the team members must be encouraged and heard. The team together have to reach a common consensus, to translate ideas into success stories."

Why did he wish to pursue M.E?

When he did not receive offer letter after being selected, he decided to level up by pursuing M.E to secure a position in a good core company. He then pursued PHD, to gain in-depth knowledge in his domain of interest.

Conclusion of his journey:

Mr. Safiyur was initially an introverted person but later, engaging with people around him helped him to develop leadership qualities. Meaningful interactions pushed him to explore beyond the curriculum. At the end of this enthralling journey, his knowledge base, mindset, and qualities with which he carried himself, helped him become a "unique and trend-setting" engineer. His unwavering trust in his journey led him to become a valuable asset to the industry.

MR.FAISAL ASHFAQUE (2010-2014)

Journey through Crescent:

Mr. Faisal Ashfaque started his journey in Crescent, as many others have. He had to move away from his family into a new city that spoke a new language and its people and culture, being entirely new to him. Although being born in Chennai, he spent his childhood years in Nagpur. When he decided to move to Chennai, Crescent was his choice.

He credits his experience in Crescent to plenty of life-changing experiences- learning new languages, learning how to be around people who are starkly different from him, and opening him up to new opportunities. The culture in Crescent, he says, had a lot of inclusivity and inherently forced him to come out of his comfort zone and explore his abilities in various ways.

By the end of his four years in Crescent, he bagged placements into two very well known companies- Cognizant and EY. He decided to take up EY's offer that gave him the role of a cyber security analyst, for which he trained to become an ethical hacker and test other companies. Sincerely he says, "Who doesn't want to hack and get paid for it?"

Click to add text

When asked why he didn't choose Cognizant, he says that it was a tough decision for him, as he always wanted to go to Cognizant. However, as he is more of an enterprising person, he felt that consulting would suit him better. EY was offering him a job in the consulting field, whereas, in Cognizant, he had no idea where he would end up.

Best Memories in Crescent:

*"Orion, of course !"*The yearly event was the most delightful memory for Mr Faisal because he always tried to either participate in some event or help organise it. He says, the fact that people from all departments came together to make something like Orion happen, will always be extremely cherishable.

"Cultural events like these help in building our personality. That's one of my key moments. And of course the Biryani. I still cherish and remember the Biryani from the canteen."

How did Crescent help?

Mr Ashfaque describes that in any organisation, the faculty plays a major role, if not directly then at least indirectly. College students are of the age in which they are easily influenced by their surroundings, the people that they meet and look up to, as well as their peers. Mr Ashfaque himself looked up to his faculty- Ambika Ma'am, Sathish Prabhu Sir and Tharini Ma'am. He says that Crescent's top-class faculty of ECE department alongside the diversity amongst students altogether made a huge difference by boosting his confidence and preparing him to face life in general, as well as his career in particular.That's how life in Crescent had positively impacted how he would handle his life after college.

How did he reach Ireland?

Getting placed into any company as a fresher is always a difficult experience. One would be at the bottom of the ladder and everything would be very surprising but slowly and steadily, everyone must learn their craft and this is what Mr Ashfaque did in EY. He believed in himself and started learning to hack and worked on improving his knowledge. He acquired a lot of certifications. This helped him make a difference and gain the ability to apply abroad. He then got selected in a company in Ireland and subsequently moved there.

Advice for Upcoming Engineers:

Mr Ashfaque interacts with a lot of students in Ireland and has the same advice for us that he does for them.

"Always be inquisitive. Keep learning because that's what will set you apart from others and help you grow. Always be willing to learn. Life will throw difficulties at you, but never shy away from them."

He describes his own difficulties when he first moved to Chennai. He went from not knowing Tamil to watching Tamil movies and speaking the language fluently. He adds that making connections is important as well.

"Everyone is human at the end of the day, so do not shy away from speaking to new people and interacting with them because such connections will help you grow."

Concluding his journey in Crescent :

Mr Faisal Ashfaque says that Crescent is not just a destination but a journey. He says that Crescent has nurtured him to be ready for any situation and to face it with a smile. He is happy to be back and to contribute to the Crescent ECE department magazine team and work with our generation. He mentions that we, the students, are the face of Crescent, who have the responsibility to take things forward.

Finally, he expressed his joy to connect with students from Crescent and shared his experiences. He mentions that he would be very happy if people benefit from his story, as everyone has a different story and he is more than happy to share his. He also commented that Crescent is such a good college that even alumni themselves want to connect back to the college and contribute in any way possible.

MS.SHAHNAZ ILLYAS (2011-2015)

Early life
Initially, her interest was in Architecture or Civil Engineering, but because of her parent's choice, Ms Shahnaz Illyas took Electronics and Communications Engineering. She had known Crescent since her birth as her mother worked in this college, which is why she decided to do her UG here.

Best Memories in Crescent:
Ms Illyas was always a very active student during her time in Crescent. In her first year, she took the opportunity to become part of the organising committee of Cres Science, after which she continued to participate in the organisation of various events linked to multiple clubs. Being part of these clubs was one of her fond memories. Since she was very active in sports as well, she recalls marching on sports day as a very cherishable memory. Ms Illyas developed friends across all departments and all years due to her involvement in all these various activities. It helped her develop her social circle.

Life before and after Crescent:
Ms Illyas says that Crescent moulded her. She was a very playful child right from her school days, but being part of Crescent helped her become more serious and dedicated towards her work. It helped her develop a great work ethic. She described how she was so invested in her project when she was in Crescent that she would rather finish her work than bunk classes with her classmates. Crescent identified this aspect of her personality and helped her bring it out.

What inspired her to prepare for UPSC and go into Civil Services?

Everybody has an ideal plan for how things should be in their country. Ms Illyas also was one such person standing on the sidelines and wanting to change things. She initially joined Infosys but, she kept feeling like she could do something more meaningful and purposeful in her life. Her life before Infosys always kept her on toes but working in a corporate company had her sitting in one place in front of a screen, which made her feel hollow. All these feelings inspired her to go into civil services and kept her motivated.

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Tips for UPSC Aspirants:

Ms Illyas suggested that people should do thorough research. A lot of youtube videos are available to make them understand the pattern of examination, the kind of questions that will be asked etc. She said that it is a very doable task to crack UPSC if you understand what the examination demands. She said that a lot of people jump into strategies and then look into the pattern whereas it should be the other way round. First, one has to know what the examination is about, what the subjects and syllabi are and then one should look into strategies. Once the strategy is formulated, she advised the aspirants to have dedication and discipline as it is very important. She also said that UPSC is a kind of examination where one's sincerity is put to test above anything else. She wants aspirants to be very sincere to make themselves satisfied with their preparation for the examination. She advises them to allot more hours of preparation for this exam than any other exam as the competition is extremely high and the pass percentage is very low.

Memories of Faculty:

Ms Illyas describes her class advisor, Mr Kannan Sir as a very calm and collected person. Every class would've gotten into trouble at some point or another, and had to face the Dean. But Mr Kannan Sir remained calm and patient with his students throughout it all. This memory stood out the most in Ms Illyas's mind.

She also described how Mrs Kalaivani Ma'am played a major role in intiating her project.

One day, Mrs Kalaivani Ma'am called her and asked her to do a program using MATLAB, and told her what output to expect. That was it, and from this program, her entire project evolved; from MATLAB, they went into lab view and so on.

Ms Illyas was amongst the first batch to use the NI ELVIS. She remembers Tharini Ma'am saying, *"You're the first batch of people who will be learning to use the ELVIS board"*. The entire ELVIS board was given to them with a project manual. They explored it with a lot of eagerness. Throughout the process, they were assisted by lab assistants. She says that she can still remember their faces clearly, especially the assistants in the networks lab. She also remembers Vijayalakshmi Ma'am, who handled Optical Communication for her.

The Balance between Family and Career:

Ms Illyas described that she took help in all possible ways. From taking care of her child, to mentally stabilising herself, she was backed by a very robust support system, her parents playing a major role in it. Despite her parents working, they put in a lot of effort to take care of her. If she had to sit for 10 hours to prepare, they ensured that someone was there to take care of her kid. After their work hours, they took care of her. The support she got during her preparation is one of the reasons why she was able to crack the exam on the first attempt. She also added that balancing family and career is not possible without proper support, so she advised the aspirants to find a proper support system before starting their preparation. She says, "it is possible to get support if you look for it".

Advice for the Future Generation:

Ms Illyas wants the upcoming generations to be socially aware. A lot of people are very much involved in social media and the noises that come with it. More than often these noises are not helping them become socially aware. "To sensationalise some news affairs is not something that makes us socially aware",she says. The upcoming generations, including our generation, are entangled in this illusion of being socially aware while they're preys of sensationalized news. She advises us to get our news from proper news channels or articles and not fall into this trap.

QUIZ TO BOOST UP YOUR MINDS

Answer the given questions with the help of the hints given :

1. An electrical current passes through a microchip, illuminating the tiny light sources called _____ and the result is visible light.

A semiconductor device that emits infrared or visible light

2: A Zener diode is widely used as _____ to regulate the voltage across small loads.

It is a form of voltage regulator

3. The distance travelled by a signal's energy in the time taken for one cycle to occur is called the signal's_____

The distance between two successive troughs of a wave

4. Connecting a lead from the negative to the positive of a battery will produce_____

It can cause circuit damage, overheating, fire or explosion

5. What voltage will an ac voltmeter display?

It is the square root of the time average of the voltage squared

6.If two resistors are placed in series, the overall resistance is?

sum of the individual resistors.

7.In an ac circuit, an output capacitor and a resistor are connected in series with an ac input signal.

What filter it is?

The complement of a high-pass filter

8.When the output of the op-amp circuit follows the input of the op-amp, then it is known as_____.

Another name for a unity gain amplifier is:

9.A digital-to-analog converter is an application of?

It can be produced by changing the input resistors for each input

10. A transistor acts as a diode and _____

It is used as the emitter source for differential amplifiers

11.A diode is a_____

It is driven with low current

12.Voltage that's divided in inverse ratio of the capacitance?

It occurs at a reverse bias voltage

13.The resistance of a circuit in which potential difference of one volt produces a current of one ampere is?

The unit of electrical resistance

14.When input signal applied reduces the channel size ,the process called as

It is caused by the diffusion of charges

15. Which digital system translates coded characters into a more intelligible form?

It is a circuit that changes a code into a set of signals

BY-LEKHA JAYAPRAKASH(II-YEAR)

ANKEETA (FINAL YEAR)

JANANI (FINAL YEAR)

COFFEE

WITH FACULTY

Interview by - SHIRIN RAFIA AND VARSHINI MURUGAN

WHICH IS THE MORE ADVANCED DEPARTMENT IN FIELD OF ENGINEERING ?

Professor Dr. P.K. Jawahar describes that no department is superior. "Building a sustainable engineering marvel such as an electric vehicle requires electrical, electronics as well as mechanical support. Integration of all gives the final product. Although most of the engineering departments are involved, we are also privileged to be a part of the development of such products. Hence, we create value as electronics and communication engineers."

WHY HE SELECTED TEACHING PROFESSION?

He completed B.E in Electronics and Communication Engineering at Coimbatore Institute of Technology in 1989. In the same year, the computer science department started booming so, Electronics and communication department got very few offers from core companies. Finally, he got placed in an IT company located in Bengaluru. He was not satisfied with his job. His dissatisfaction made him explore his newfound passion for teaching. He attended multiple interviews to pursue the same. In 1990, he got selected in Adhiparasakthi Engineering College located in Melmaruvathur. He loved his profession. He feels that he is not only a teacher but always an avid learner in his heart. He describes this feeling by calling himself a senior student.

EXPERIENCE IN CRESCENT

He explains that in Adhiparasakthi College, students struggled in communication efficacy, but they were very talented and possessed needful skills. Working in that college was a valuable experience to him but, he did not wish to stop there. So, he researched other colleges and found that Crescent is one of the most popular colleges in Tamil Nadu and was the number one in the list of self-financing colleges. As many had great regards for the Institute, he attended the interview and got selected. He appreciated the attitude of the students studying in Crescent and felt very comfortable with students in very few days.

He noticed that students studying in Crescent have excellent communication skills and are confident. Even though most of the students here were rich, they never showed attitude towards professors or students.

Dr. Jawahar observes that students at Crescent are very friendly, obedient, and sincere. When he was new to this college, he went on a trip with final year students and felt that the trip was great and refreshing. He was able to spend quality time with his students. He describes that the environment at Crescent was unique. He continued to work here even though he received many offers as he likes the atmosphere here very much.

Interesting projects done with Crescent students?

Dr. Jawahar takes us back to 2002 when he was the class advisor for the 1999-2003 batch. He recollects the project "Smart Power Meter" done by one of his students, still placed in his cabin after all these years. The role of this project was to collect data and communicate with the EB office. At that time, the idea of a "Smart power meter" was not widely adopted by cities as many were using the traditional method for reading power. He is proud that the student who came up with this idea is still working in the same domain and has achieved a lot, awarded by many industries.

What are your hobbies in your free time?

Dr. Jawahar smiles and says,"Working on my computer is my hobby and now, a part of my life as I am doing this for the past 25 years". He works with new software programs and updates his knowledge based on the current trend of the industry. "I get frustrated and upset if my system fails or if there is no internet or power to switch ON my system", he laughs it off. Apart from this, he likes to listen to songs and watch comedy channels alone. During this pandemic, he upgraded himself by learning photography and gardening.

What role do teachers play in shaping students' life?

"Teachers are role models for students", he says. He feels that if teachers are sincere in their work and have enough knowledge, then students will respect them and will follow their path. He continues to say that, every day teachers should update their knowledge, be disciplined, and love their students. *"A teacher should inspire the students by the way they teach and they should never be biased."*

Advice for Students

Professor Dr Jawahar senses that all are intellectuals in this modern world and everything is available on Google. But he wants the students to not depend on machines like mobiles and computers but to form a network, make connections with people, and love each other. *"Respect your parents and your well-wishers as they are your pillars"*, he says. He asks his students to share knowledge amongst themselves and study together as learning together helps everyone. He requests his fellow students not to be selfish. He wishes that students contribute towards the growth of society as by doing so, the society will contribute towards their success.

WORD SEARCH

A	L	H	S	D	I	G	I	T	A	L	M	W	R
O	P	T	I	C	A	L	F	I	B	E	R	A	A
F	A	O	T	G	C	S	E	H	S	O	I	T	L
S	T	C	G	A	H	A	I	D	I	X	A	T	B
I	R	I	U	B	R	I	T	W	O	H	M	S	M
L	A	R	I	S	X	N	I	H	W	D	I	O	C
I	N	C	O	I	U	S	C	C	O	A	L	L	I
C	S	U	I	G	L	U	N	G	U	D	O	D	H
O	F	I	R	N	F	L	T	L	F	T	E	C	E
N	O	T	R	A	O	A	T	C	T	C	T	C	I
N	R	T	U	L	R	T	L	C	H	I	A	O	R
T	M	S	R	R	F	O	T	U	W	S	T	S	C
O	E	N	T	C	F	R	S	S	T	R	W	E	M
L	R	O	T	S	I	S	N	A	R	T	H	W	O

"ONE DAY I WILL FIND THE RIGHT WORDS ,
AND THEY WILL BE SIMPLE"-JACK KEROUAC

ARTISAN VALLEY

ART SPEAKS WHAT THE WORDS ARE UNABLE TO EXPLAIN

By Shanmuganathan - II year

A.S. Arshiya Mehaajabbin - II year

Abinesh.M - I year
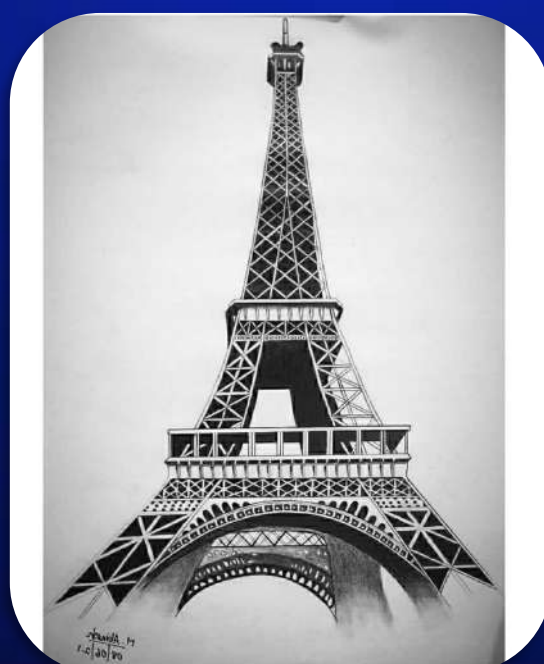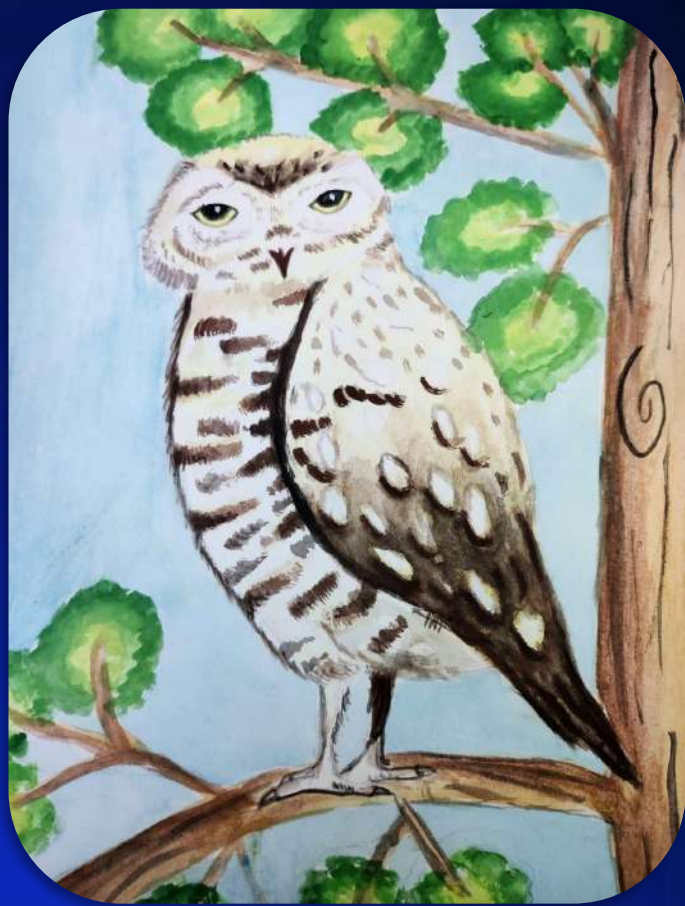
Uma Maheshwari - III year
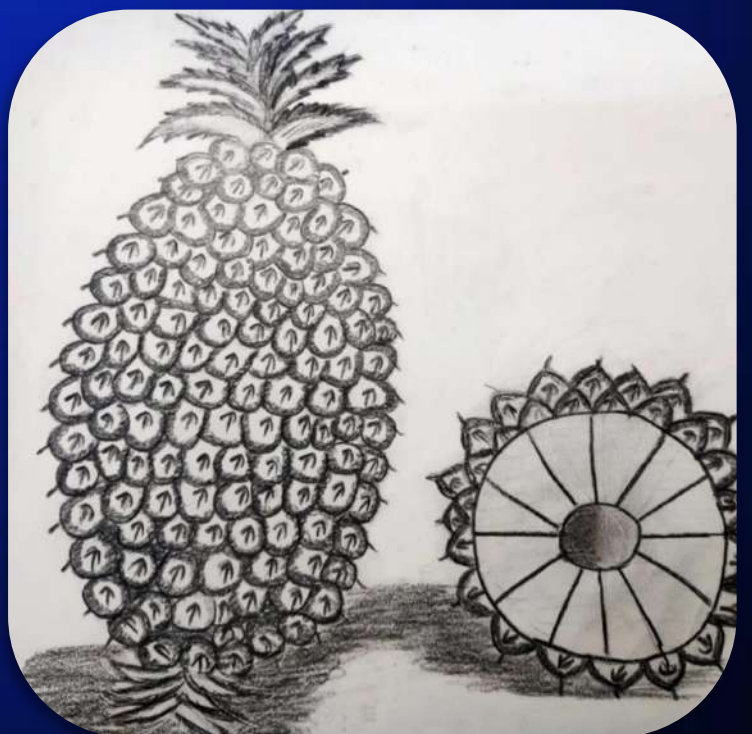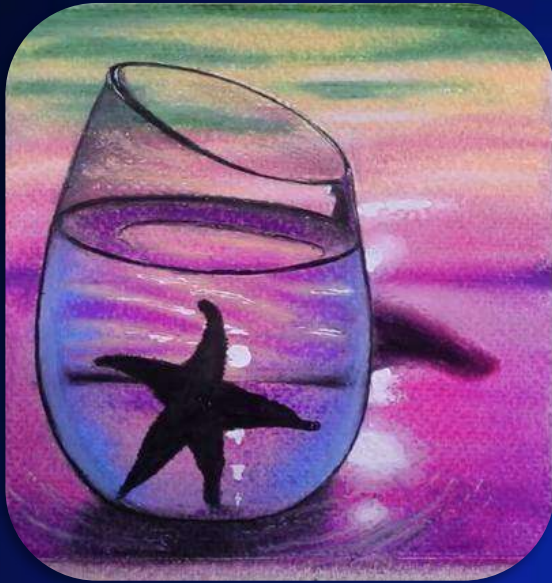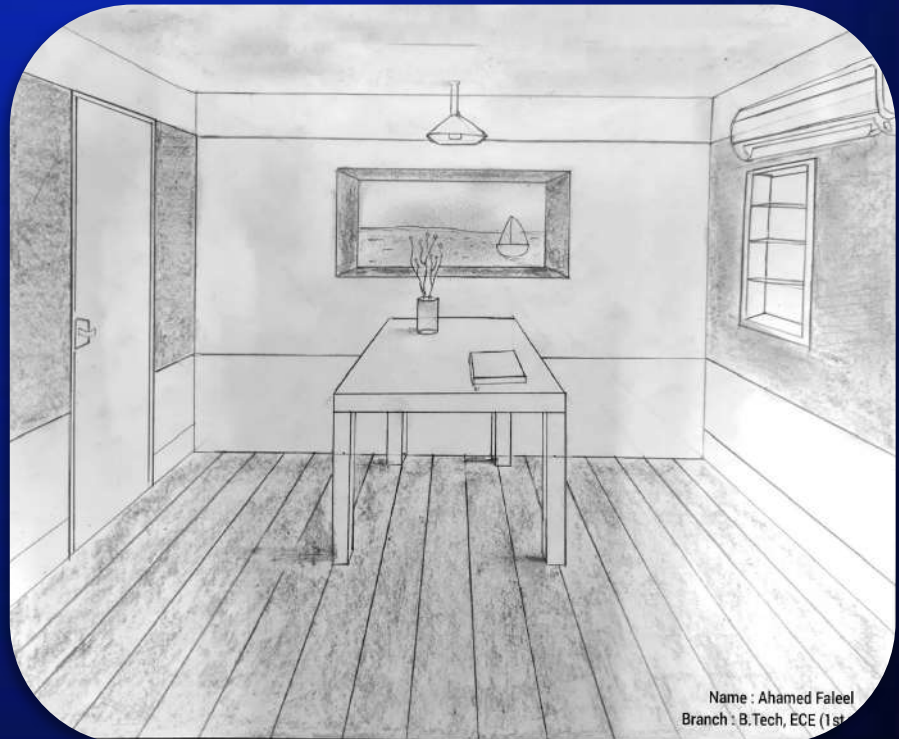
Azim Khan - III year
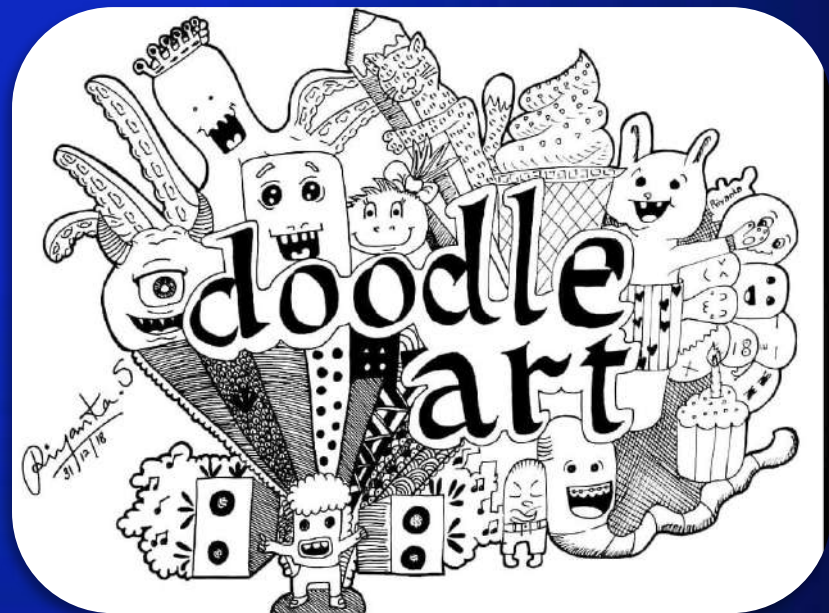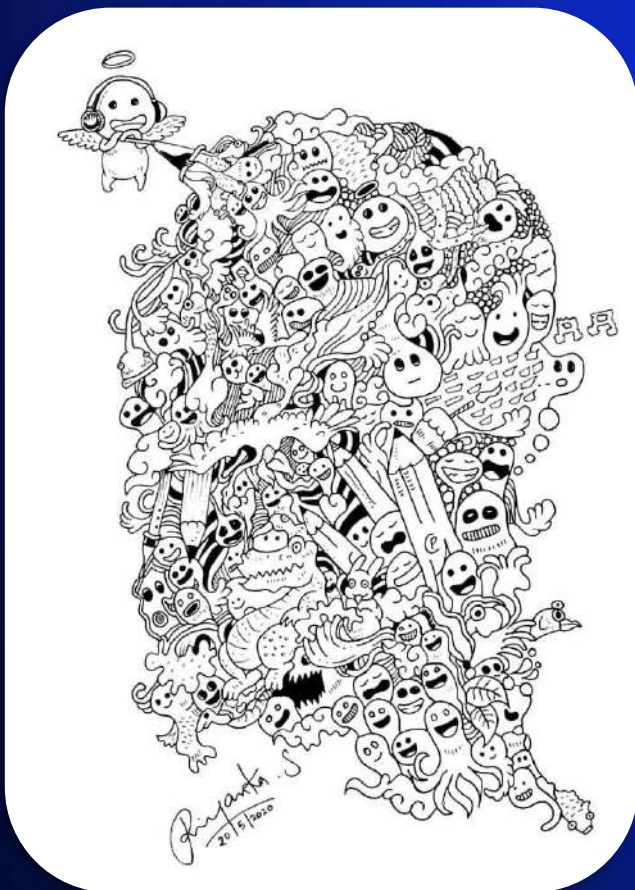
S.Priyanka - IV year
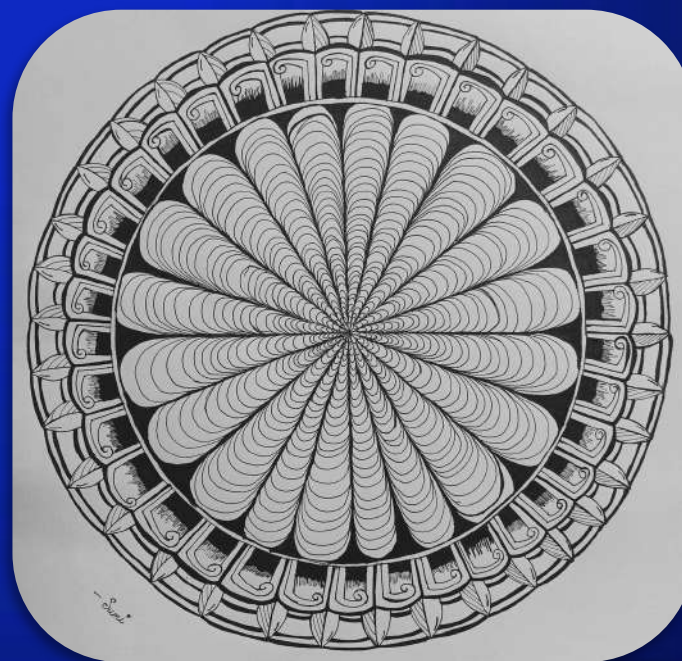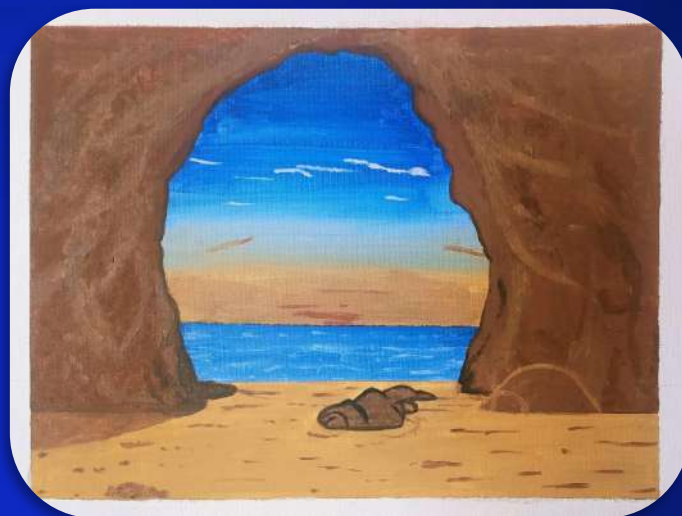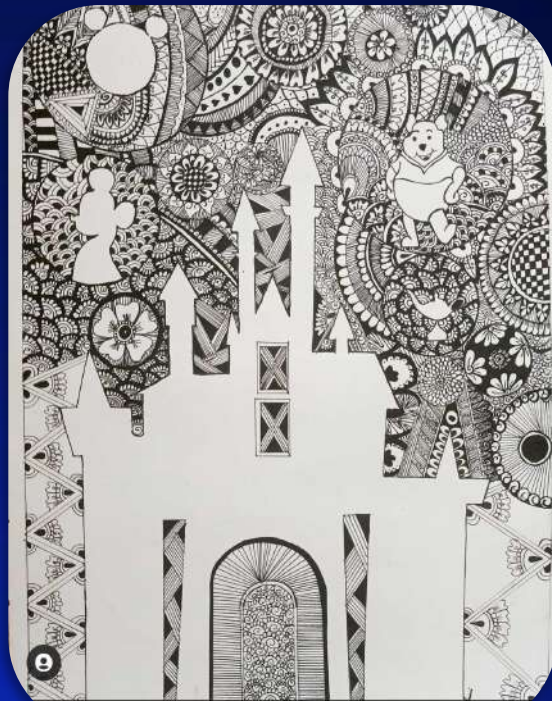
Krithica -
II year

ShreeHarini -
III year

Ahamed Faleel - I year

Name : Ahamed Faleel
Branch : B.Tech, ECE (1st

Sumaiya Fathima.A - IV year

Mohammed Ummer - I Year

Arshiya Fathima -I year

WORD SEARCH ANSWERS
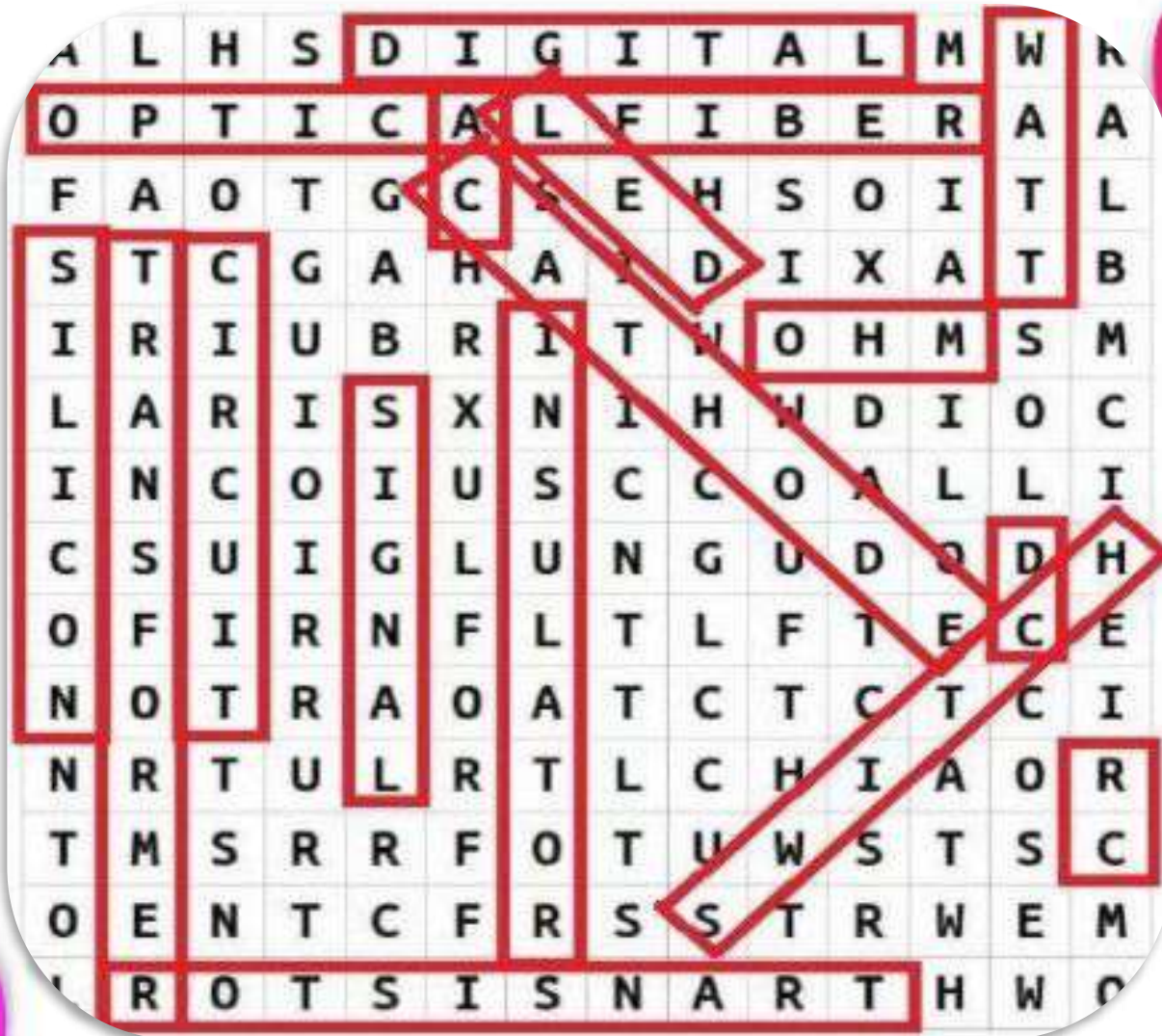
WORD SEARCH WINNERS

FIRST PLACE

- **MUHAMMAD FAROOQ(1st Year)**
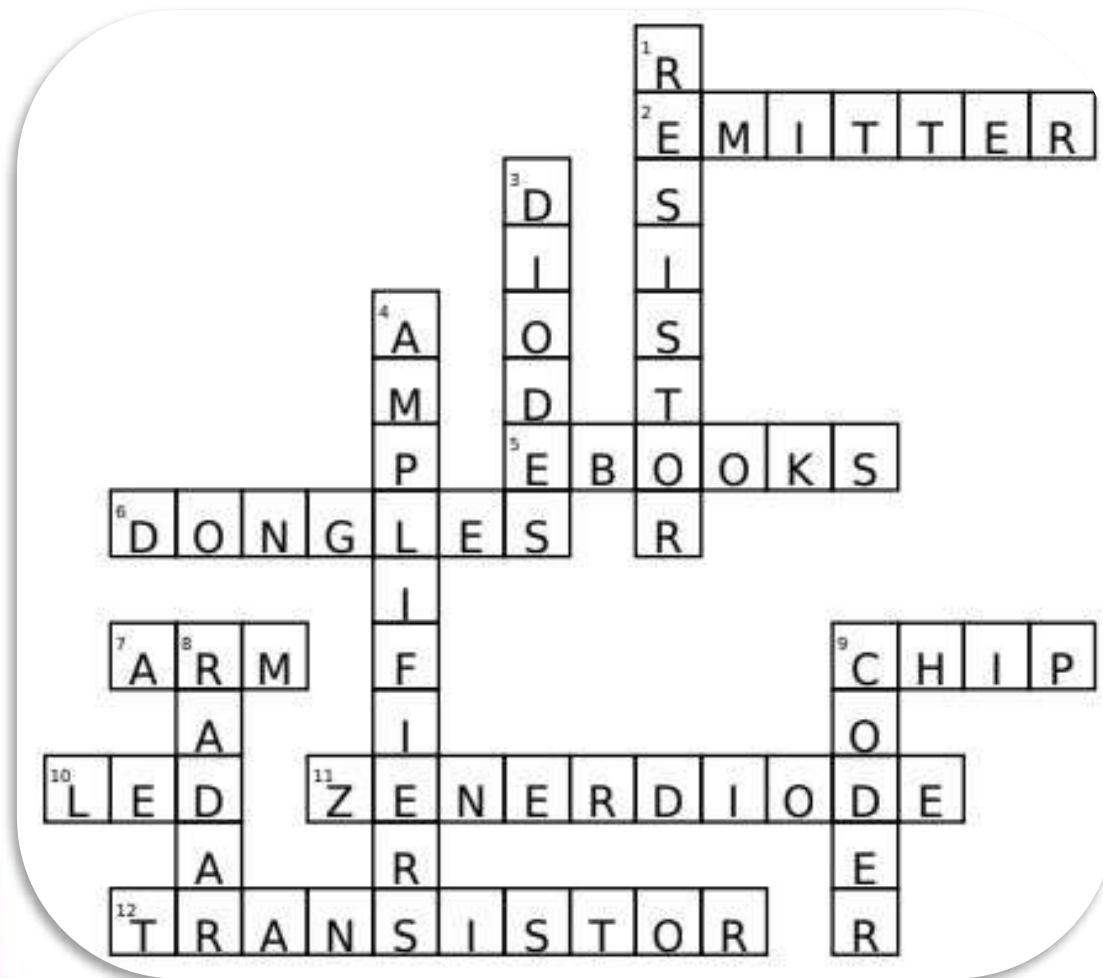- **PASALA BHARGAVI(3rd Year)**

SECOND PLACE

S.R.PARVEZ RISWAN MOHAMED(3rd Year)

THIRD PLACE

KATTAM REDDY SAI CHARAN(1st Year)

CROSS WORD ANSWERS

CROSS WORD WINNERS
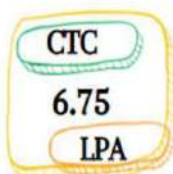
FIRST PLACE
MOHAMMED AAMIR KHAN LODI(1st year)

SECOND PLACE
MUHAMMAD FAAROOQ (1st Year)

THIRD PLACE
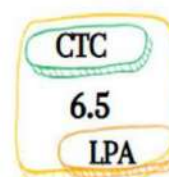- **MOHAMED AMAN(3rd Year)**
- **SRIYA SAMANVITA(1st Year)**

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Cognizant
CTC
6.75
LPA

pwc
CTC
6.5
LPA

Rishub C R

Ankeeta Behera B

EY
Building a better
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CTC
4.5
LPA

Rishub C R

Mehran Saquib

Bhanu Prakash

Keerthana.M

Aakif Ahmed.T

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4.3
LPA

Sumaiya Tabassum S

accenture

CTC
4.25
LPA

Badhrinath.S   Mohammed Dhanish K.J   Suhail.A   Thanuja.N   Shaik Riyaz   Mahaboob Rahman.S

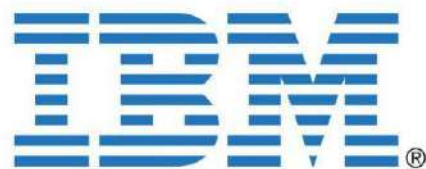Anjana Badrinath   Aparna.S   Mohamed Nadheem.A   Mohammed Ijaz.S   Swetha.G.S   Jeevitha.M

IBM

CTC
4.25
LPA

Ananda Perumal B   Swetha G S   Raja Mahendran M

Cognizant

CTC 4 LPA

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Anjana Badhrinath | Mohamed Aslam.I | P.Tagore Srinath Reddy | Mohamed Nadheem A | Bhanu Prakash | Suhail A

Shanawaz | Sundheep Narasimman B S | Vedasistla Sohith | Priyadharshan | Shaik Jakir | Syed Mishal

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CTC 3.5 LPA

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Thanuja | Navoj Prabu | Pathan Zubair Khan | Sundheep Narasimman | Shaik Jakir Hussain

Vedasistla Sohith | Syed Mishal | Abdur Rahmaan A | Adnan Mumtaz

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wipro

CTC
3.5
LPA

MOHAMMED DHANISH KJ

SHANMUKHA SAI M

APARNA S

SUMAIYA TABASSUM

SHYAM S

YASHWANTH S
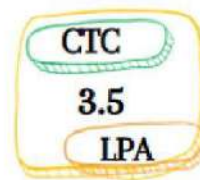

SHAIK JAMAL VALI

SUHAIL A

SHANAWAZ

Mu Sigma
DO THE MATH

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3.5
LPA

Rishub C R

Shanawaz

Syed Mishal

Janani M

Ishwarya S

Mohammad Dhanish KJ
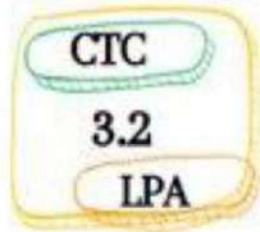

Gamini Saikiran

Yashwanth S

Asraf Ali Khan

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Sudhersan.N

Thiripuvana sundari.M

Janani.M

Anirudh.S

Swetha.S

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FINAL YEAR

VARSHINI MURUGAN
FINAL YEAR

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SURYA.K
III-YEAR

VIJAY
III-YEAR

ASMAA AREEF
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III-YEAR

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III-YEAR
(EXECUTIVE MEMBER)

SUDHERSAN
FINAL YEAR

ART TEAM
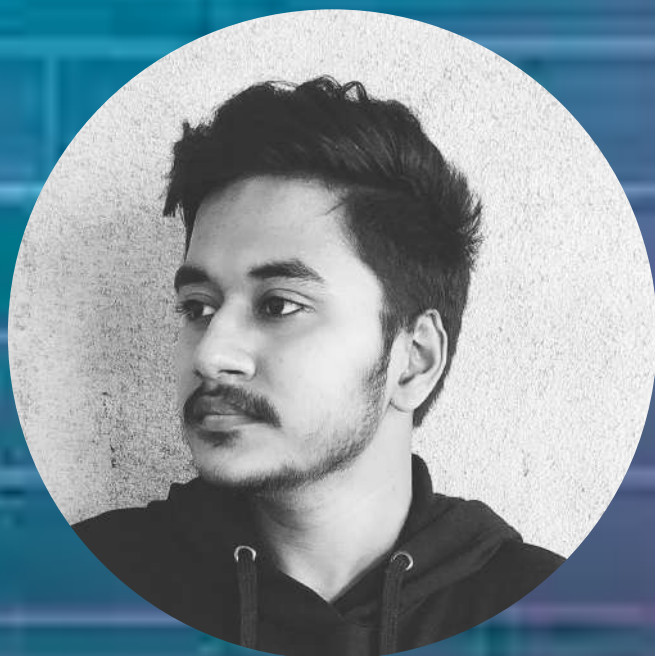
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PRIYANKA.S FINAL YEAR

UMA MAHESWARI.P III-YEAR (EXECUTIVE MEMBER)

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NIKITHA REDDIM FINAL YEAR

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III-YEAR**

**R.S.ANUJAYASHREE
(EXECUTIVE
MEMBER)
III-YEAR**

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FINAL YEAR

SHIRIN RAFIA
FINAL YEAR

QUIZ TEAM

ANKEETA
BEHERA.B
FINAL YEAR

JANANI
FINAL YEAR

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